

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A method of manufacturing a semiconductor device, the method comprising:

forming a conductive film over a semiconductor with an insulating film therebetween;

forming a resist pattern on the conductive film by using one of a photomask having a diffraction grating pattern ~~[[or]]~~ and a reticle having a diffraction grating pattern, ~~wherein slit lines of the diffraction grating pattern are formed so as to be perpendicular to the photomask or the reticle, and~~ wherein a thickness of an edge portion of the resist pattern is smaller than a thickness of a middle portion of the resist pattern;

forming a gate electrode by etching using the resist pattern, wherein a thickness of an edge portion of the gate electrode is smaller than a thickness of a middle portion of the gate electrode; and

introducing an impurity element into the semiconductor with the gate electrode as a mask to form a first impurity region and a second impurity region in the semiconductor, wherein the first impurity region is not overlapped with the gate electrode and the second impurity region is overlapped with the edge portion of the gate electrode.

2-3. (Canceled)

4. (Currently Amended) A method of manufacturing a semiconductor device, the method comprising:

forming a conductive film over a semiconductor with an insulating film therebetween;

forming a resist pattern on the conductive film by using one of a photomask **[[or]]** and a reticle having a light shielding portion and a translucent film, wherein **[[a]]** the translucent film is adjacent to the one of the photomask **[[or]]** and the reticle, and wherein a thickness of an edge portion of the resist pattern is smaller than a thickness of a middle portion of the resist pattern;

forming a gate electrode by etching using the resist pattern, wherein a thickness of an edge portion of the gate electrode is smaller than a thickness of a middle portion of the gate electrode; and

introducing an impurity element into the semiconductor with the gate electrode as a mask to form a first impurity region and a second impurity region in the semiconductor, wherein the first impurity region is not overlapped with the gate electrode and the second impurity region is overlapped with the edge portion of the gate electrode.

5-10. (Canceled)

11. (Original) The method of manufacturing a semiconductor device according to claim 1, wherein a plurality of slit portions are used as the diffraction grating pattern.

12-13. (Canceled)

14. (Original) The method of manufacturing a semiconductor device according to claim 4, wherein a phase of an exposure light is shifted by one wavelength by passing through the translucent film portion, the exposure light being a single wavelength light.

15-17. (Canceled)

18. (Previously Presented) The method of manufacturing a semiconductor device according to claim 1, wherein the edge portion of the resist pattern has a tapered configuration.

19-20. (Canceled)

21. (Previously Presented) The method of manufacturing a semiconductor device according to claim 4, wherein the edge portion of the resist pattern has a tapered configuration.

22-31. (Canceled)

32. (Original) The method of manufacturing a semiconductor device according to claim 1, wherein the semiconductor is a semiconductor layer formed on an insulating surface.

33. (Original) The method of manufacturing a semiconductor device according to claim 4, wherein the semiconductor is a semiconductor layer formed on an insulating surface.

34. (Canceled)

35. (Original) The method of manufacturing a semiconductor device according to claim 1, wherein the semiconductor is a semiconductor substrate.

36. (Original) The method of manufacturing a semiconductor device according to claim 4, wherein the semiconductor is a semiconductor substrate.

37-51. (Canceled)

52. (Original) The method of manufacturing a semiconductor device according to claim 1, wherein the etching is dry etching.

53. (Original) The method of manufacturing a semiconductor device according to claim 4, wherein the etching is dry etching.

54. (Canceled)

55. (Previously Presented) The method of manufacturing a semiconductor device according to claim 1, wherein the semiconductor device is incorporated into an electronic device selected from the group consisting of a video camera, a digital camera, a projector, a head mounted display, a navigation system, a car stereo, a personal computer, a portable information terminal.

56-57. (Canceled)

58. (Previously Presented) The method of manufacturing a semiconductor device according to claim 4, wherein the semiconductor device is incorporated into an electronic device selected from the group consisting of a video camera, a digital camera, a projector, a head mounted display, a navigation system, a car stereo, a personal computer, a portable information terminal.

59-64. (Canceled)

65. (Currently Amended) A method of manufacturing a semiconductor device comprising the steps of:

forming a conductive film over a semiconductor with an insulating film therebetween;
forming a resist pattern on the conductive film by using one of a photomask ~~[[or]]~~ and a reticle, ~~wherein a diffraction grating pattern is formed so as to be perpendicular to the photomask or the reticle, and~~ wherein a thickness of an edge portion of the resist pattern is smaller than a thickness of a middle portion of the resist pattern;

forming a gate electrode by etching using the resist pattern, wherein a thickness of an edge portion of the gate electrode is smaller than a thickness of a middle portion of the gate electrode; and

introducing an impurity element into the semiconductor with the gate electrode as a mask to form a first impurity region and a second impurity region in the semiconductor, wherein the second impurity region is in contact with a channel forming region, and the first impurity region is in contact with the second impurity region.

66. (Previously Presented) The method of manufacturing a semiconductor device according to claim 65, wherein a plurality of slit portions are used as the diffraction grating pattern.

67. (Previously Presented) The method of manufacturing a semiconductor device according to claim 65, wherein the edge portion of the resist pattern has tapered configuration.

68. (Previously Presented) The method of manufacturing a semiconductor device according to claim 65, wherein the semiconductor is a semiconductor layer formed on an insulating surface.

69. (Previously Presented) The method of manufacturing a semiconductor device according to claim 65, wherein the semiconductor is a semiconductor substrate.

70. (Previously Presented) The method of manufacturing a semiconductor device according to claim 65, wherein the etching is dry etching.

71. (Previously Presented) The method of manufacturing a semiconductor device according to claim 65, wherein the semiconductor device is incorporated into an electronic device selected from the group consisting of a video camera, a digital camera, a projector, a head

mounted display, a navigation system, a car stereo, a personal computer, a portable information terminal.

72. (Currently Amended) A method of manufacturing a semiconductor device comprising the steps of:

forming a conductive film over a semiconductor with an insulating film therebetween;

forming a resist pattern on the conductive film by using one of a photomask **[[or]]** and a reticle having a light shielding portion and a translucent film, wherein **[[a]]** the translucent film is adjacent to the one of the photomask **[[or]]** and the reticle, and wherein a thickness of an edge portion of the resist pattern is smaller than a thickness of a middle portion of the resist pattern;

forming a gate electrode by etching using the resist pattern, wherein a thickness of an edge portion of the gate electrode is smaller than a thickness of a middle portion of the gate electrode; and

introducing an impurity element into the semiconductor with the gate electrode as a mask to form a first impurity region and a second impurity region in the semiconductor, wherein the second impurity region is in contact with a channel forming region, and the first impurity region is in contact with the second impurity region.

73. (Previously Presented) The method of manufacturing a semiconductor device according to claim 72, wherein a phase of an exposure light is shifted by one wavelength by passing through the translucent film portion, the exposure light being a single wavelength light.

74. (Previously Presented) The method of manufacturing a semiconductor device according to claim 72, wherein the edge portion of the resist pattern has tapered configuration.

75. (Previously Presented) The method of manufacturing a semiconductor device according to claim 72, wherein the semiconductor is a semiconductor layer formed on an insulating surface.

76. (Previously Presented) The method of manufacturing a semiconductor device according to claim 72, wherein the semiconductor is a semiconductor substrate.

77. (Previously Presented) The method of manufacturing a semiconductor device according to claim 72, wherein the etching is dry etching.

78. (Previously Presented) The method of manufacturing a semiconductor device according to claim 72, wherein the semiconductor device is incorporated into an electronic device selected from the group consisting of a video camera, a digital camera, a projector, a head mounted display, a navigation system, a car stereo, a personal computer, a portable information terminal.

79-85. (Canceled)

86. (Currently Amended) A method of manufacturing a semiconductor device comprising the steps of:

forming a conductive film over a semiconductor with an insulating film therebetween;
forming a resist pattern on the conductive film by using one of a photomask ~~[[or]]~~ and a reticle, ~~wherein a diffraction grating pattern is formed so as to be perpendicular to the photomask or the reticle, and~~ wherein a thickness of an edge portion of the resist pattern is smaller than a thickness of a middle portion of the resist pattern; and

forming a gate electrode by etching using the resist pattern, wherein a thickness of an edge portion of the gate electrode is smaller than a thickness of a middle portion of the gate electrode.

87. (Previously Presented) The method of manufacturing a semiconductor device according to claim 86, wherein a plurality of slit portions are used as the diffraction grating pattern.

88. (Previously Presented) The method of manufacturing a semiconductor device according to claim 86, wherein the edge portion of the resist pattern has tapered configuration.

89. (Previously Presented) The method of manufacturing a semiconductor device according to claim 86, wherein the semiconductor is a semiconductor layer formed on an insulating surface.

90. (Previously Presented) The method of manufacturing a semiconductor device according to claim 86, wherein the semiconductor is a semiconductor substrate.

91. (Previously Presented) The method of manufacturing a semiconductor device according to claim 86, wherein the etching is dry etching.

92. (Previously Presented) The method of manufacturing a semiconductor device according to claim 86, wherein the semiconductor device is incorporated into an electronic device selected from the group consisting of a video camera, a digital camera, a projector, a head mounted display, a navigation system, a car stereo, a personal computer, a portable information terminal.

93. (Currently Amended) A method of manufacturing a semiconductor device comprising the steps of:

forming a conductive film over a semiconductor with an insulating film therebetween;
forming a resist pattern on the conductive film by using one of a photomask [[or]] and a reticle having a light shielding portion, a translucent film, wherein [[a]] the translucent film is

adjacent to one of the photomask **[[or]]** and the reticle, and wherein a thickness of an edge portion of the resist pattern is smaller than a thickness of a middle portion of the resist pattern; and

forming a gate electrode by etching using the resist pattern, wherein a thickness of an edge portion of the gate electrode is smaller than a thickness of a middle portion of the gate electrode.

94. (Previously Presented) The method of manufacturing a semiconductor device according to claim 93, wherein a phase of an exposure light is shifted by one wavelength by passing through the translucent film portion, the exposure light being a single wavelength light.

95. (Previously Presented) The method of manufacturing a semiconductor device according to claim 93, wherein the edge portion of the resist pattern has tapered configuration.

96. (Previously Presented) The method of manufacturing a semiconductor device according to claim 93, wherein the semiconductor is a semiconductor layer formed on an insulating surface.

97. (Previously Presented) The method of manufacturing a semiconductor device according to claim 93, wherein the semiconductor is a semiconductor substrate.

98. (Previously Presented) The method of manufacturing a semiconductor device according to claim 93, wherein the etching is dry etching.

99. (Previously Presented) The method of manufacturing a semiconductor device according to claim 93, wherein the semiconductor device is incorporated into an electronic device selected from the group consisting of a video camera, a digital camera, a projector, a head

mounted display, a navigation system, a car stereo, a personal computer, a portable information terminal.

100. (New) The method of manufacturing a semiconductor device according to claim 1, wherein slit lines of the diffraction grating pattern are formed so as to be perpendicular to a light shielding portion of the one of the photomask and the reticle.

101. (New) The method of manufacturing a semiconductor device according to claim 65, wherein slit lines of the diffraction grating pattern are formed so as to be perpendicular to a light shielding portion of the one of the photomask and the reticle.

102. (New) The method of manufacturing a semiconductor device according to claim 86, wherein slit lines of the diffraction grating pattern are formed so as to be perpendicular to a light shielding portion of the one of the photomask and the reticle.